

**CP5291 SECURITY PRACTICES**

DETAILED SYLLABUS

**OBJECTIVES:**

- To learn the core fundamentals of system and web security concepts
- To have through understanding in the security concepts related to networks
- To deploy the security essentials in IT Sector
- To be exposed to the concepts of Cyber Security and encryption Concepts
- To perform a detailed study of Privacy and Storage security and related Issues.

**UNIT I SYSTEM SECURITY**

Building a secure organization- A Cryptography primer- detecting system Intrusion Preventing system Intrusion- Fault tolerance and Resilience in cloud computing environments- Security web applications, services and servers.

**UNIT II NETWORK SECURITY**

Internet Security - Botnet Problem- Intranet security- Local Area Network Security - Wireless Network Security - Wireless Sensor Network Security- Cellular Network Security Optical Network Security- Optical wireless Security.

**UNIT III SECURITY MANEGEMENT**

Information security essentials for IT Managers- Security Management System – Policy Driven System Management- IT Security - Online Identity and User Management System - Intrusion and Detection and Prevention System.

**UNIT IV CYBER SECURITY AND CRYPTOGRAPHY**

Cyber Forensics- Cyber Forensics and Incidence Response - Security e-Discovery - Network Forensics - Data Encryption- Satellite Encryption - Password based authenticated Key establishment Protocols.

**UNIT V PRIVACY AND STORAGE SECURITY**

Privacy on the Internet - Privacy Enhancing Technologies - Personal privacy Policies - Detection of Conflicts in security policies- privacy and security in environment monitoring systems. Storage Area Network Security - Storage Area Network Security Devices – Risk management - Physical Security Essentials.

**REFERENCES:**

1. John R.Vacca, Computer and Information Security Handbook, Second Edition, Elsevier 2013.
2. Michael E. Whitman, Herbert J. Mattord, Principal of Information Security, Fourth Edition, Cengage Learning, 2012.
3. Richard E.Smith, Elementary Information Security, Second Edition, Jones and Bartlett Learning, 2016